



RAILROAD COMMISSION OF TEXAS

HEARINGS DIVISION

OIL AND GAS DOCKET NO. 7B-0297775

**THE APPLICATION OF STEPHENS & JOHNSON OPERATING CO. TO CONSIDER
APPROVAL OF UNITIZATION FOR SECONDARY RECOVERY AUTHORITY,
DYESS FRY UNIT, DYESS (FRY SAND) FIELD, TAYLOR COUNTY, TEXAS**

HEARD BY: Brian Fancher, P.G. – Technical Examiner
Laura Miles-Valdez – Hearings Examiner

HEARING DATE: October 28, 2015
RECORD CLOSED: October 28, 2015
SUBMISSION DATE: October 31, 2015
CONFERENCE DATE: December 8, 2015

APPEARANCES:

REPRESENTING:

APPLICANT:

David Gross
Dale Miller
James Tart
Jeffrey Ritchie

Stephens & Johnson Operating Co.

EXAMINERS' REPORT AND RECOMMENDATION

STATEMENT OF THE CASE

Stephens & Johnson Operating Co. (S&J) requests Commission approval of the unit agreement for the proposed Dyess Fry Unit (Unit), and Commission authority for unitization of the Unit for secondary recovery operations.

The application is unopposed and the Examiners recommend that it be approved.

DISCUSSION OF EVIDENCE

Dale Miller and James Tart testified on behalf of S&J. Mr. Miller is a consulting Petroleum Engineer, while Mr. Tart is a Staff Petroleum Engineer with S&J.

The Dyess (Fry Sand) Field (Field) was discovered in May 1959. The field rules governing the Field provide 330' lease line spacing, 933' between-well spacing, 20-acre density, and allocation based on 75% acres and 25% per well. The top allowable is 73 BOPD maximum efficiency rate regulated by a gas-oil ratio of 2,000 cubic feet per barrel. The cumulative oil production from the Field through July 2015 is 1.32 million barrels of oil and 2.7 billion cubic feet of gas.

S&J seeks to designate the Unit as the subsurface interval described as the Fry Formation between the depths of 4,322 feet and 4,376 feet, as shown on the log for the Teaff, N.D. -A-Lease, Well No. 1 (API No. 42-441-00665), John McSherry Survey (A-129), Taylor County, Texas.

There are 4 active wells listed on the July 2015 Oil Proration Schedule. Mr. Miller testified that although the oil proration schedule indicates the Field is comprised of four wells, in reality it is made of two S&J wells. He testified that due to stratigraphic pinch-out of the Fry Sand Formation ("Fry"), the area that S&J seeks to unitize is a separate and distinct reservoir made of 31 historic wells. In addition, although the Field's July 2015 Gas Proration Schedule includes a gas well (*i.e.* the Dyess Air Force Base Lease, Well No. 2) is located in the Field, it is in a separate reservoir than the reservoir comprising the proposed Unit.

The field has an average porosity of 14%, water saturation of 25%, average net pay of 22 feet, with an estimated recovery factor of 31.1%. S&J plans to produce the Unit with roughly 10 injection wells and 8 producing wells.

The Field is composed of the Fry Sand. The Field varies in thickness throughout the proposed Unit with isopach thicknesses ranging from 0 to 50 feet. The Field's regional dip is from east to west and ranges between -2,400 to -2,520 sub-sea level.

S&J's estimates that it will recover an additional 992,839 barrels of oil through its proposed secondary recovery operations on the Unit. The total cost to implement and operate this secondary recovery project is expected to be \$12,815,250. The value of the oil to be recovered as a result of the unitization is expected to be \$16,564,986.

There are two producing wells that remain in primary production within the proposed Unit boundary. The Unit Agreement provides for a two phase participation formula. Phase I is applied only to tracts with reserved wellbores, or existing wells still in primary production. The Phase I tract participation will be 100% of the production from a reserved wellbore in its respective tract. S&J anticipates that the remaining primary production from the two reserve wellbores will be about 63,537 barrels of oil, collectively.¹ Phase II participation is based 45% of the total reservoir volume of each tract in the Unit, 45% of the cumulative primary production on each tract divided by the cumulative primary production of all tracts in the Unit, and 10% of the surface area of each tract divided by the total surface area of the Unit.

¹ S&J Exh. No. 17, Pg. 3; Remaining Primary Oil Tract Production as of May 1, 2015 (bbls).

There are 669.92-acres in the Unit with 14 tracts. At the time of the hearing, 96.39% of the working interest ownership and 85.4% of the royalty interest ownership had signed the original unit agreement, effective December 31, 2015. There are no state owned lands in the proposed Unit. S&J will separately gauge production from wells on tracts in the Unit that do not have 100% sign-up by installing separate tanks for those wells.

FINDINGS OF FACT

1. Stephens & Johnson Operating Co. (S&J) seeks Commission authority to designate the Dyess Fry Unit (Unit) as a unit for secondary recovery purposes in the Dyess (Fry Sand) Field (Field), Taylor County, Texas (Subject Application).
2. Notice of hearing for the Subject Application was sent to all working interest owners, royalty interest owners and offset operators of record at least ten days prior to the hearing held on October 28, 2015.
3. Notice of the Subject Application was published in the Abeline Reporter-News, a newspaper of general circulation in Taylor County, for four consecutive weeks beginning Monday, September 21, 2015.
4. The Unit consists of 14 tracts which contain 669.95-acres.
5. S&J's seeks to designate the correlative interval commonly known as the Fry Formation between the depths of 4,322 feet and 4,376 feet, as shown on the log for the Teaff, N.D. -A- Lease, Well No. 1 (API No. 42-441-00665), John McSherry Survey (A-129), Taylor County, Texas, as the unitized interval beneath the Unit ("Unitized Interval").
6. The proposed Unitized Interval is a separate and distinct reservoir in the Field, and was created as a result of multiple stratigraphic traps in the Fry formation.
7. At the time of the hearing, 96.39% of the working interest ownership and 85.4% of the royalty interest ownership had signed the original unit agreement, effective December 31, 2015.
8. Secondary recovery operations are expected to result in the recovery of an estimated 992,839 barrels of oil which may otherwise go unrecovered.
9. The total cost to implement and operate the secondary recovery project is expected to be \$12,815,250.
10. The value of the oil to be recovered as a result of the unitization is expected to be \$16,564,986.
11. The cost to conduct secondary recovery operations on the Unit in the proposed Unitized Interval does not exceed the value of additional reserves to be recovered from the proposed Unitized Interval.

12. The Unit Agreement provides for a two-phase participation formula:
 - a. Phase I is applied only to tracts with reserved wellbores, or existing wells still in primary production.
 - b. Phase I tract participation will be 100% of the production from a reserved wellbore in its respective tract.
 - c. Phase II participation is based 45% of the total reservoir volume of each tract in the Unit, 45% of the cumulative primary production on each tract divided by the cumulative primary production of all tracts in the Unit, and 10% of the surface area of each tract divided by the total surface area of the Unit.
13. The remaining primary production from the two reserve wellbores within the Unit will be about 63,537 barrels of oil, collectively.
14. The Unit Agreement was voluntarily executed by all parties affixing their signatures thereto and no person has been compelled to enter into the agreement.
15. The Unit Agreement binds only those persons who have executed it, their heirs, successors, assigns and legal representatives. The rights of all owners of interests in the field will be protected under the operation of the Unit, regardless of whether an owner signed the Unit Agreement.
16. The owners of interests in the oil and gas under each tract of land within the area reasonably defined by development have been given an opportunity to enter into the Unit on the same yardstick basis as owners of interests in the oil and gas under the other tracts in the Unit.
17. The proposed injection program will move hydrocarbons across lease lines, and unitization is necessary in order to protect the correlative rights of the various interest owners.
18. The unitization agreement is necessary to accomplish the purposes of establishing a Unit to effect secondary recovery operations for water injection and to operate cooperative facilities necessary thereto. Other available or existing methods or facilities for secondary recovery operations are inadequate for the purpose of secondary recovery.
19. The Unit Agreement does not provide, either directly or indirectly, for the cooperative refining or marketing of crude petroleum, distillate, condensate, or gas, or any by-product thereof.

20. The Unit Agreement is subject to all valid orders, rules and regulations of the Railroad Commission.
21. The Unit Agreement contains no provision regarding the field rules, nor does it limit the amount of production of oil and gas from the unitized area.
22. The Unit Agreement does not release the operator from his obligation to reasonably develop lands or leases as a whole.
23. The Unit Agreement is a voluntary agreement entered into for the purpose of conducting secondary recovery operations.
24. The Unit Agreement does not provide for the location of wells.
25. The Unit Agreement is in the interest of public welfare as being reasonably necessary to prevent waste and to promote conservation.
26. The proposed Unitized Interval described in the Unit Agreement is identified as a single reservoir for Commission purposes and is a suitable reservoir for a secondary recovery project.
27. The Unit Agreement contains only the acreage reasonably necessary to accomplish the proposed secondary recovery project.
28. S&J will separately gauge production from wells on tracts in the Unit that do not have 100% sign-up by installing separate tanks for those wells, or measure production from wells on tracts in the Unit that do not have 100% sign-up.

CONCLUSIONS OF LAW

1. Resolution of the subject application is a matter committed to the jurisdiction of the Railroad Commission of Texas. Tex. Nat. Res. Code § 81.051
2. All notice requirements have been satisfied. 16 Tex. Admin. Code § 1.45
3. Applicant's proposed secondary recovery project satisfies all of the requirements set out in Tex. Nat. Res. Code Ann. §§101.001-052.
4. Approval of the proposed unit agreement for secondary recovery operations is in the public interest and is necessary to prevent waste and to promote the conservation of oil or gas or both.

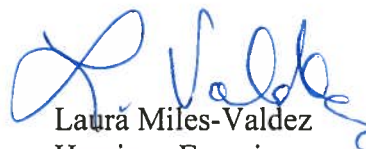
EXAMINERS' RECOMMENDATION

Based on the above findings of fact and conclusions of law, the Examiners recommend that the Commission designate the Dyess Fry Unit as a unit for secondary recovery purposes , as proposed by S&J.

Respectfully submitted,



Brian Fancher, P.G.
Technical Examiner



Laura Miles-Valdez
Hearings Examiner